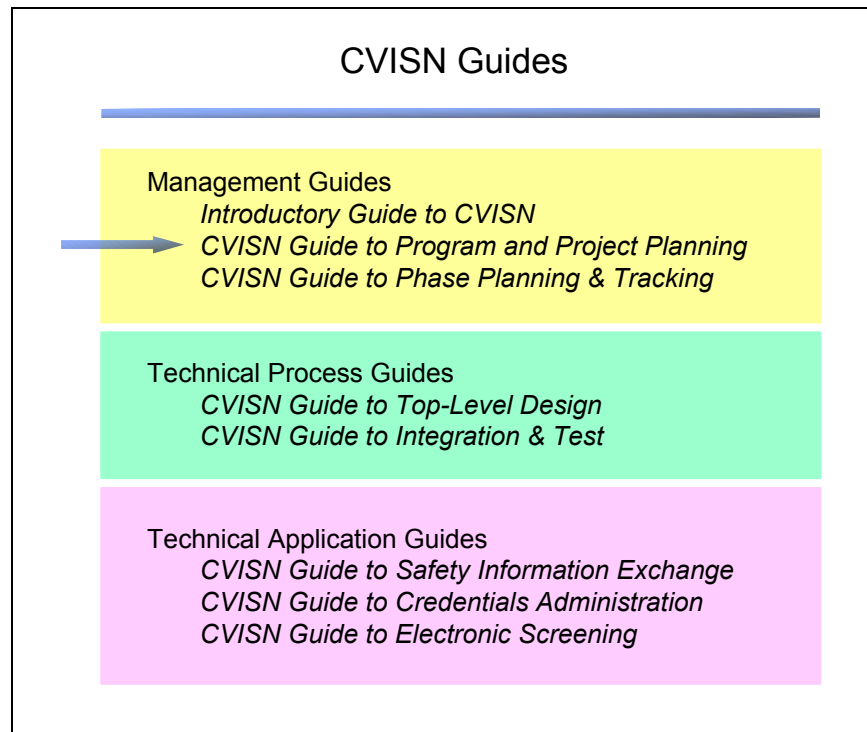# 1. INTRODUCTION

This CVISN (Commercial Vehicle Information Systems and Networks) Guide describes how to plan a state CVISN program and its underlying projects.

It is one in a series of guides. All guides are available from the CVISN website [14]. Acronyms are defined in Appendix A of the *Introductory Guide to CVISN* [3] and explained in detail in the *ITS/CVO CVISN Glossary* [24].

CVISN Guides

Management Guides
    Introductory Guide to CVISN
    CVISN Guide to Program and Project Planning
    CVISN Guide to Phase Planning & Tracking

Technical Process Guides
    CVISN Guide to Top-Level Design
    CVISN Guide to Integration & Test

Technical Application Guides
    CVISN Guide to Safety Information Exchange
    CVISN Guide to Credentials Administration
    CVISN Guide to Electronic Screening

Figure 1–1. CVISN Guides

## 1.1 "Program" versus "Project"

This Guide emphasizes CVISN <u>project planning principles</u> which when applied will produce your CVISN <u>program plan</u>. Although "program" and "project" sound like synonyms they have very different formal meanings. Is it worth taking time to clear up terminology? Yes – so that document authors and readers, workshop speakers and attendees, each conjure up the same meanings underlying these words we use as symbols. As well, we take care so as not distract you with sloppy or unnecessarily-duplicative terminology.

The Project Management Institute (PMI) defines [1]:

Program – A group of related projects managed in a coordinated way to obtain benefits not available from managing them individually. Programs usually include an element of ongoing activity. For example, publishing a newspaper is a program; each individual issue is a project.

Project – A temporary endeavor undertaken to create a unique product or service. To further clarify: organizations perform work. Work generally involves either *operations* or *project*s, although the two may overlap. Operations and projects share many characteristics; for example they are: performed by people; constrained by limited resources; and planned, executed, and controlled. However, operations and projects differ primarily in that operations are ongoing and repetitive while projects are temporary and unique.

When a state takes on the CVISN Program, it sets in motion a mixture of projects that deploy utility and performance in the three major functional areas, as illustrated in Figure 1–2 (adapted from [16]).
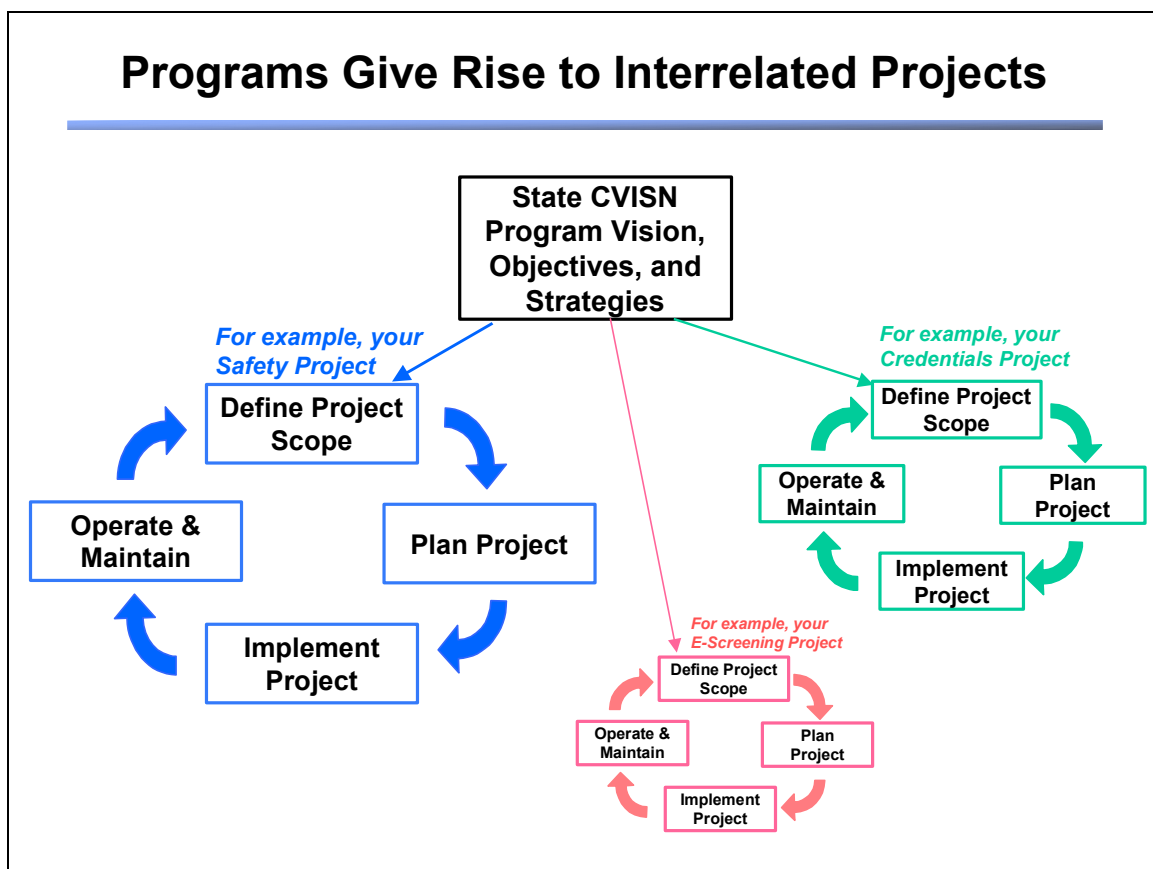
Figure 1–2. A Program Gives Rise to Interrelated Projects

What is a Program Manager as opposed to a Project Leader? The <u>Program Manager</u> provides strategic leadership over an array of projects, and may personally lead one or two projects. The <u>Project Leader</u> provides tactical leadership on one project.

PMI goes on to define [1]:

> <u>Project Management</u> – The application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project.

State CVISN Level 1 programs might include **projects** such as:

- Safety
- Credentials
- Electronic Screening

You could choose to define your projects more narrowly. For instance you might have one project that focuses on the International Registration Plan (IRP) and another project focused on the International Fuel Tax Agreement (IFTA). It's up to you.

1.2 Purpose of the Guide

This Guide will assist you by distributing the information, knowledge, insight, and experience of others who have traveled a comparable path. It describes CVISN-specific project planning principles, processes, tools, and their resulting products. It suggests how to tailor the processes to accommodate your particular situation. It is written for the Program Manager, Project Leaders, and everyone else directly associated with writing a Program Plan or a Project Plan, or managing CVISN projects on a day-to-day basis.

This Guide assumes that your state has funds available to, at a minimum, plan and organize the CVISN program; that you have attended the introductory training courses [15,16,17]; and that you have documented the top-level system design upon which to base this plan.

This Guide is just that – a guide; it is not a set of management requirements or specifications. Ordinarily, states do not have the luxury to set up offices that are 100% assigned to the CVISN Program. More likely, experienced people are assigned to CVISN development tasks along with their many on-going operational tasks. Therefore it may not be practical for your CVISN team to produce every table, chart, and diagram to the level of detail shown in this Guide. The content, not the format, is what ultimately matters. What is truly imperative is a <u>grasp of the underlying fundamental principles and processes</u>.

1.3 What is a Program Plan?

A State CVISN Program Plan establishes the management framework for the program. The development of the Program Plan starts with the beginning of the program, and usually precedes the development of any project plans. <u>As the shape of the program emerges projects are identified more clearly</u>. The Program Plan gives the program team and upper management a picture of:

- What the program is trying to accomplish.
- How the work will be done.
- What organizations will support the effort, and who the leaders will be.
- How much funding is needed and where it will come from (e.g., state revenues or federal programs).
- Where the connections are across projects.
- What integrated capabilities will be developed in each phase.
- How to assess whether the program is on track.

1.4 What is a Project Plan?

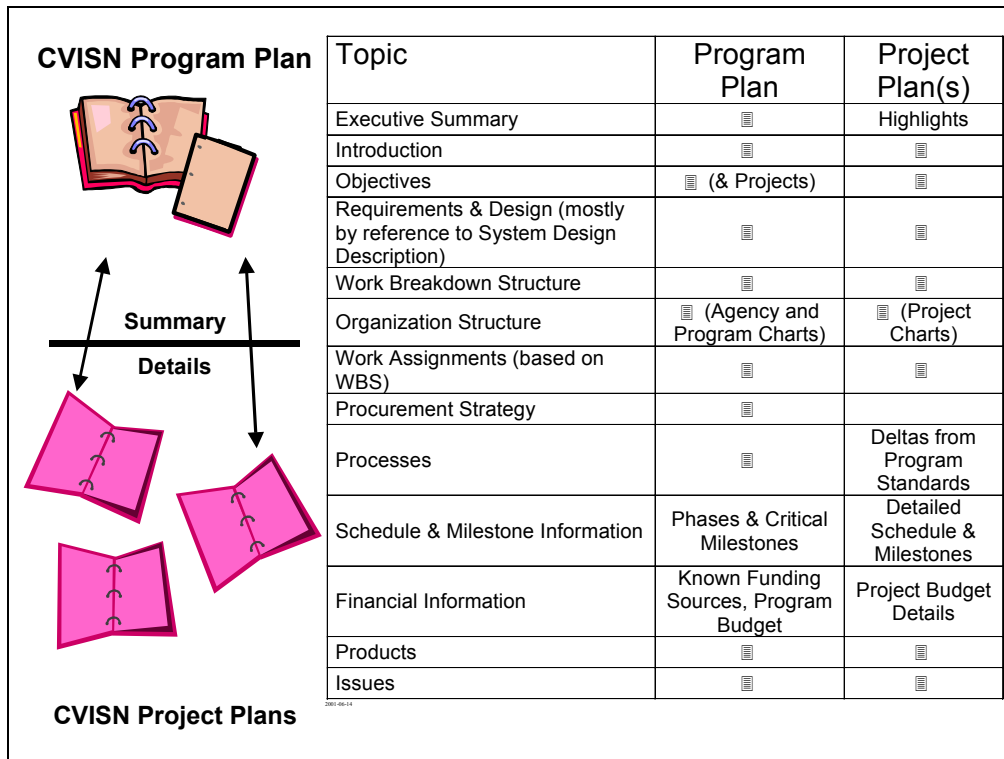PMI provides this working definition [1]:

> *A <u>Project Plan</u> is a formal, approved document used to guide both project execution and project control. The primary uses of the Project Plan are to document planning assumptions and decisions; to facilitate communication among stakeholders; and to document approved scope, cost, and schedule baselines. A Project Plan may be summary-level or detailed.*

In practice, a Project Plan may be published formally at the beginning of each project, and then maintained as an informal "living" plan focused on the phased development of incremental capabilities. As such, the Project Plans often evolve into a collection of historical information, fairly short-term plans, and current status. The material from one phase becomes "historical" as the phase is completed. Keeping track of history makes you a better planner for the future, so it's a good idea to save the records throughout the project.

1.5 How are the Program Plan and Project Plans Related?

When projects become clearly defined, project planning can commence. The relatively more detailed results of project planning typically feed back to the higher-level program planning process as project needs and staff are adjusted, as phases are re-defined, and most importantly, as reality sets in. The program planning process, of necessity, involves top-down decrees. Conversely, the project planning process involves bottom-up assessments. After project leaders have addressed the reality of working-level costs and schedules, the top-down Program Plan must often be repaired.

Figure 1–3 shows the chapters in the Program versus Project Plans. Although both plans contain the same chapter names, the Program Plan is at a summary level, whereas the Project Plan is at a working-detail level.

CVISN Program Plan

Summary

Details

CVISN Project Plans

Topic	Program Plan	Project Plan(s)
Executive Summary	📄	Highlights
Introduction	📄	📄
Objectives	📄 (& Projects)	📄
Requirements & Design (mostly by reference to System Design Description)	📄	📄
Work Breakdown Structure	📄	📄
Organization Structure	📄 (Agency and Program Charts)	📄 (Project Charts)
Work Assignments (based on WBS)	📄	📄
Procurement Strategy	📄	
Processes	📄	Deltas from Program Standards
Schedule & Milestone Information	Phases & Critical Milestones	Detailed Schedule & Milestones
Financial Information	Known Funding Sources, Program Budget	Project Budget Details
Products	📄	📄
Issues	📄	📄

Figure 1–3. The CVISN Program and Project Plans Address Nearly Identical Topics but at Different Levels of Detail

1.6 Planning Prerequisites

Before you begin to write the Program Plan, please read this *CVISN Guide to Program and Project Planning* all the way through, as well as its companion, the *CVISN Guide to Phase Planning and Tracking* [44].

Also complete the scenarios and design framework begun at the CVISN Scope Workshop that you attended. You cannot write a comprehensive Project Plan unless you have a good grasp of the technical scope of your project.

Concurrent with development of the Program Plan, you need to fill out the COACH Part 2 (Management) Checklists [70].

If you haven't already, start a Program Library. Review and retain the state's strategic plans, business plans, and any information systems plans which affect the systems in the CVISN design, or conversely, which CVISN might affect.

Sketch out a rough draft phase schedule, so that you have a notion of the "big picture" for development and deployment.

Begin to recruit individuals – from all segments : state, private industry, universities – who will support CVISN development and deployment. This encompasses not only the program team members, but also the steering committee, carrier organizations, and any other structures needed to assure project success.

Write a Memorandum of Agreement among all participating state agencies. A sample is provided on the JHU/APL CVISN website [14].

You will need to understand your state's legislative and budget cycle. Later you will need to utilize your state's procurement process for off-the-shelf items, and your state's contracting process for development items, so you need to understand them too. (Contracting issues are notorious for slowing down the startup of a project.)

It is not too early to prepare a rough draft of a Request for Proposal (RFP) for each envisioned contract.

Most importantly, secure the funding sources for the CVISN program. The major job of the Program Manager, besides staffing leadership positions, is to keep the program "alive" with funding.